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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,933	05/25/2005	Shigeyuki Iwasa	Q85489	5310
23373	7590	01/09/2007	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			RUTHKOSKY, MARK	
			ART UNIT	PAPER NUMBER
			1745	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	01/09/2007	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/519,933	IWASA ET AL.	
	<b>Examiner</b> Mark Ruthkosky	<b>Art Unit</b> 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 July 2006.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>12/29/2004</u> .	6) <input type="checkbox"/> Other: _____.

**DETAILED ACTION**

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

The information disclosure statement filed 12/29/2003 has been placed in the application file, and the information referred to therein has been considered as to the merits.

***Drawings***

The drawings filed on 12/29/2004 have been approved.

***Claim Objections***

Claims 1-12 are objected to because of the following informalities: The independent claims have a period before the formulae that separates the claims into separate parts/sentences. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In formula 2, the variable n is not defined.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

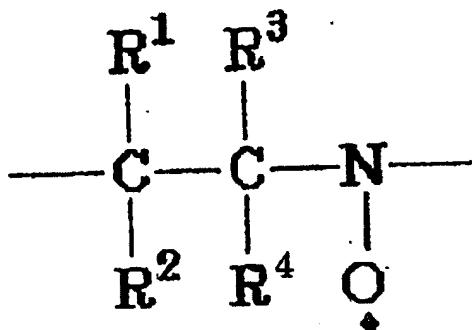
A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakahara et al.

(WO 02/082570.)

The instant claims are to a secondary battery having at least a positive electrode, a negative electrode, and an electrolyte, wherein the secondary battery includes a polymer having a repeating unit represented by formula (1) as an active material of at least one of the positive electrode and the negative electrode.



According to formula (1),  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^4$  each independently represents hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted aromatic hydrocarbons, substituted or unsubstituted heteroaromatic groups, halogen atom, or alkylene group that may be coupled to the ring form at least one or both of  $\text{R}^1$  and  $\text{R}^3$ ,  $\text{R}^2$  and  $\text{R}^4$ .

Nakahara et al. (WO 02/082570) teaches a secondary battery having at least a positive electrode, a negative electrode, and an electrolyte, wherein the secondary battery includes a positive electrode of a polymer having a repeating unit represented by formula (1) as an active material of at least one of the positive electrode and the negative electrode, wherein  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$  and  $\text{R}^4$  each independently represents hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted aromatic hydrocarbons, substituted or unsubstituted heteroaromatic groups, halogen atom, or alkylene group that may be coupled to the ring form at least one or both of  $\text{R}^1$  and  $\text{R}^3$ ,  $\text{R}^2$  and  $\text{R}^4$  (see the various formulae disclosed in the reference, for example on page 8.) The electrode may be used in a lithium battery (pages 10-14.) Thus, the claims are anticipated.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (JP 2002-117854.)

Sato et al. (JP 2002-117854) teaches a secondary battery having at least a positive electrode, a negative electrode, and an electrolyte, wherein the secondary battery includes a positive electrode of a polymer having a repeating unit represented by formula (1) as an active material of at least one of the positive electrode and the negative electrode, wherein R1, R2, R3 and R4 each independently represents hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted aromatic hydrocarbons, substituted or unsubstituted heteroaromatic groups, halogen atom, or alkylene group that may be coupled to the ring form at least one or both of R1 and R3, R2 and R4 (see the various formulae disclosed in the reference, for example figures 5-7 in paragraph 34 and paragraph 36.) The electrode may be used in a lithium battery (p. 39-45.) Thus, the claims are anticipated.

*Examiner Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

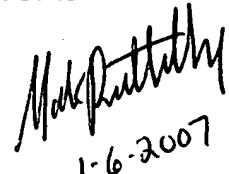
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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free.)

Mark Ruthkosky

Primary Patent Examiner

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1-6-2007